

REMARKS

Claims 1-13 remain pending in this application for which applicant seeks reconsideration.

Amendment

In light of the drawing objection that the drawings do not illustrate the teeth being bent toward the pulley, independent claims 1, 4, 7, and 8 have been amended to clarify that the angled portion of the band saw flattens when the pulleys apply operational tension. See paragraph 33 (page 13, lines 3-7). These claims also have been amended to define the inherent characteristic or function of a band saw, namely for making straight or linear cuts. Claims 8 and 9 further have been amended to remove minor informalities. No new matter has been introduced.

Restriction - Rejoinder of Non-Elected Claims

Claims 4-9 and 11-13 were withdrawn as directed to the non-elected inventions. As each of the non-elected claims contains all of the elements of claim 1, if claim 1 is allowed, claims 4-9 and 11-13 **MUST** be rejoined and allowed together.

Drawing Objection

The drawings were objected to because they do not illustrate the teeth being bent toward the pulley. As explained above, the band saw flattens when the pulleys apply an operational tension. That is, the angle portion flattens or straightens relative to the main body portion, as illustrated in Fig. 4. Fig. 3 illustrates the angle when the band saw is not under any tension, which shows the one edge portion with the saw teeth bent relative to the inner side of the saw body. Accordingly, applicant submits that no additional drawing is needed since Figs. 3 and 4 together illustrate the claimed feature at issue.

Art Rejection

Claims 1-3 and 10 were rejected under 35 U.S.C. § 103(a) as unpatentable over

admitted prior art, such as Nakahara (USP 5,094,135), in view of Waggerman (USP 5,317,945) or Dolah (USP 5,852,875). The examiner also relied upon Kobayashi (USP 6,220,139), Kataoka (USP 5,901,630), and Kawakami (USP 4,236,432) in support of the Official Notices taken by the examiner in declaring that the dimensions set forth in claims 2 and 3 are well known. Applicant traverses these rejections because none of the applied references would have taught a band saw with the entire edge portion with the teeth bent near the tooth base line of the saw body so that the entire saw teeth are angled toward the inner side of the saw body, as set forth in claim 1.

Claim 1 recites a band saw having one edge portion angled relative to a major portion of the saw body near a tooth base line thereof so that the entire saw teeth are angled one way relative to the saw body. By way of background, the present inventor has discovered that the useful longevity of a band saw can be improved by bending the entire saw teeth side toward the inner side of the saw body. See Tables 1 and 2 of the present disclosure. Indeed, the present inventor discovered that the side on which the saw teeth are formed deforms toward the outer side of the saw body due to the centrifugal force and the generated heat during sawing. See paragraph 12 of the present disclosure. By angling or deforming the side on which the saw teeth are formed toward the inner side of the saw body, the deformation caused by the heat/centrifugal force is checked.

First, the examiner is of the opinion that angling the entire teeth to one side is old, relying on Waggermann or Dolah. The issue germane to patentability here is not whether it is known to angle teeth of just any saw, but whether it would have been obvious to angle the entire edge portion with the teeth of a band saw in one direction, namely toward the inner side of the saw body. Note that none of the secondary references relied upon by the examiner deal with a band saw. Waggermann discloses a circular saw and Dolah discloses a corer.

Second, while the examiner states that it would have been obvious to angle the teeth to improve curve cuts, the examiner provides no objective evidence that angling the teeth will aid in making curve cuts in a band saw. Indeed, it is well known in the art that a band saw is a machine for resawing, namely for making vertical or straight cuts, not curved cuts. See for example, *BANDSAW RESAWING*, by George Vondrisk, page 46, *WOODWORKER*

MAGAZINE, August 2000. In this respect, there would not have been any motivation for one of ordinary skill in the art to angle the teeth of a band saw to one side since it is not a machine for making curved cuts. Thus, in contrast to the examiner's assertion, angling the teeth as suggested by the examiner would not promote or improve curve cuts in a band saw. The examiner has yet to provide any objective evidence that angling the teeth of a band saw to one side, let alone toward the inner side of the saw body. Accordingly, the combination urged by the examiner is improper.


Third, regarding claims 2 and 3, only Kobayashi discloses any dimensions. Even so, Kobayashi does not disclose the claimed dimensions set forth in claims 2 and 3. Moreover, there would not have been any motivation to provide the claimed dimensions for a band saw. As to the examiner taking Official Notice, applicant challenges such a position since the examiner has not provided any evidence that the claimed dimensions are well known. Accordingly, applicant submits that the combination would not have taught the claimed dimensions set forth in claims 2 and 3.

Conclusion

Applicant submits that claims 1-13 patentably distinguish over the applied references and are in condition for allowance. Should the examiner have any issues concerning this reply or any other outstanding issues remaining in this application, applicant urges the examiner to contact the undersigned to expedite prosecution.

Respectfully submitted,

ROSSI, KIMMS & McDOWELL LLP



Lyle Kimms
Reg. No. 34,079 (Rule 34)

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Date

P.O. BOX 826
Ashburn, VA 20146-0826
703-726-6020 (Phone)
703-726-6024 (fax)